Claim Amendments

Claims 1 - 8 (cancelled).

9. (currently amended) An apparatus for liberating oxygen isotopes from oxygen-containing solids ~~characterized in that it includes~~ comprising a graphite ~~cuvette (1)~~ crucible and an induction heating source capable of heating an oxygen-containing solid in said crucible to a temperature at which oxygen in said solids react with carbon of said crucible to form CO or CO_2.

10. (currently amended) The apparatus according to claim 9, ~~characterized in that~~ wherein the graphite ~~cuvette (1)~~ crucible is provided in a vacuum-tight housing ~~(5)~~ of quartz glass to which a pump is connected.

11. (currently amended) The apparatus according to claim 9~~, characterized in that it~~ which comprises means ~~(7)~~ for capturing gaseous CO or ~~CO2~~ CO_2 arising from the induction heating of the solids in said crucible.

12. (currently amended) The apparatus according to claim 10~~, characterized in that~~ wherein the housing ~~(5)~~ of quartz glass is provided with means ~~(8)~~ for cooling ~~it~~ the housing.

13. (currently amended) The apparatus according to claim 10~~, characterized in that~~ wherein the housing ~~(5)~~ of quartz glass can be opened on opposite sides to replace the solid ~~with~~ and the graphite ~~cuvette~~ crucible containing the solid.

14. (currently amended) The apparatus according to claims 13~~, characterized in that~~ wherein the graphite ~~cuvette (1)~~ crucible is elongated whereby at ~~an upper~~ a lower end a cavity ~~(2)~~ is provided which can receive a rod with which the graphite cuvette can be mounted in~~,~~ the housing ~~(5)~~.

Claims 15 to 17, (cancelled).

18. (currently amended) An apparatus for liberating oxygen isotopes from a solid, comprising:

an elongated quartz-glass evacuatable vacuum-tight housing connectable to a vacuum pump and having an outlet;

an elongated graphite ~~cuvette~~ crucible having a cavity at one end and a bore at an opposite end, said cavity receiving a sample of said solid;

a rod received in said bore for inserting said ~~cuvette~~ crucible into said housing and positioning said cuvette in said housing;

a cooling jacket surrounding said housing and provided with an inlet and an outlet for passing a cooling liquid through said jacket;

an induction coil surrounding said housing for induction heating of said ~~cuvette~~ crucible and said solid to gradually raise a temperature of said solid ~~ti~~ to initially drive impurities therefrom and then decompose said solid to liberate oxygen therefrom whereby said oxygen combines with graphite carbon to form a ~~carbon-oxygen~~ gas comprising carbon oxides;

a duct for admitting a carrier gas to said housing whereby said gas containing oxygen liberated from said solid is entrained in said carrier gas through said outlet to a spectrometer for isotope analysis.